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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/564,773

01/13/2006

Lothar Bauersachs

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EXAMINER

WOLFE, DEBRA M

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/564,773	<b>Applicant(s)</b> BAUERSACHS ET AL.	
	<b>Examiner</b> DEBRA M. WOLFE	<b>Art Unit</b> 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,27-45 and 47-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47,48 and 50 is/are allowed.
- 6) ☒ Claim(s) 1,27,32,34,36-38,41,49 and 51-57 is/are rejected.
- 7) ☒ Claim(s) 28-31,33,35,39,40 and 42-45 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 37 and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 37 and 52 state that there many to one *or* more predetermined starting points and are located in a configuration relative to one another. However, since this limitation is in the alternative there may be only one predetermined starting point and therefore it is unclear how the one predetermined starting point is located in a configuration relative to another if there is only one predetermined starting point initially.

Claims 53 and 54 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is insufficient antecedent basis for the limitation "the new shaping tool" recited in line 18 of claims 53 and 54. Furthermore, it is unclear when the at least one shaping tool is replaced with a new shaping tool within the claimed method.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this



subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 27, 32, 34, 36, 38, 41, 49 and 51 rejected under 35 U.S.C. 102(e) as being anticipated by Denkmeier (US 2006/0042339 A1). In reference to claims 1 and 27, Denkmeier discloses a method for forging a work pieces by use of a forging machine having at least one shaping tool [See paragraph 0078 lines 1-3] wherein during the machining process, a work piece is handled by means of at least one handling device [human operator, See FIG 2], before machining of work pieces on the forging machine using the tool, the position of the tool is determined by the fact that a detection device (44) approaches one predetermined reference surface (43) on the tool and detects at least one position on the one reference surface, data corresponding to the detected position of the reference surface (43) from the detection device (44) are transmitted to an evaluating means and from the data from the detection device (44) about the position of the reference surface, the evaluating means determines the position of the tool and the at least one handling device handles the work piece based on the determination of the position of the tool by the evaluating means [See paragraphs 0084-0087].

In reference to claim 32, Denkmeier discloses the detection device (44) detects at least two points of the predetermined reference surface by scanning the predetermined reference surface [See paragraph 0086].

In reference to claim 34, Denkmeier further discloses using a plurality of detected positions of the predetermined reference surface and performing at least one of determining a reference plane in space [See paragraph 0087].



In reference to claim 36, the detection device (44) approaches the predetermined reference surface on the shaping tool from one predetermined starting point [See paragraph 0052 & 0053].

In reference to claim 38, Denkmeier further discloses after replacing the shaping tool with a new shaping tool, determining a position of the new shaping tool using the detection device (44) and the evaluating means in a calibration step and basing the handling of the work pieces on the determined position of the new shaping tool.

In reference to claim 41, Denkmeier discloses a device configured for forging work pieces, comprising of a forging machine, a handling device [human operator, See FIG 2] for handling a work piece, at least one detection device (44) and one or more predetermined reference surfaces (43) on a shaping tool of the forging machine, wherein the at least one or more predetermined reference surfaces is positioned to be scanned by the at least one detection device (44) and an evaluating means configured to determine a position of the shaping tool from information transmitted by the detection device (44) [See paragraph 0084-0087].

In reference to claim 49, Denkmeier discloses a method for forging a work pieces by use of a forging machine having at least one shaping tool [See paragraph 0078 lines 1-3] wherein during the machining process, a work piece is handled by means of at least one handling device [human operator, See FIG 2], before machining of work pieces on the forging machine using the tool, the position of the tool is determined by the fact that a detection device (44) approaches one predetermined reference surface (43) on the tool and detects at least one position on the one reference surface, data corresponding to the detected position of the reference surface (43) from the detection device (44) are transmitted to an evaluating means and from the data from the



detection device (44) about the position of the reference surface, the evaluating means determines the position of the tool and the at least one handling device handles the work piece based on the determination of the position of the tool by the evaluating means [See paragraphs 0084-0087] and using a plurality of detected positions of the predetermined reference surface and performing at least one of determining a reference plane in space [See paragraph 0087].

In reference to claim 51, Denkmeier discloses a method for forging a work pieces by use of a forging machine having at least one shaping tool [See paragraph 0078 lines 1-3] wherein during the machining process, a work piece is handled by means of at least one handling device [human operator, See FIG 2], before machining of work pieces on the forging machine using the tool, the position of the tool is determined by the fact that a detection device (44) approaches one predetermined reference surface (43) on the tool and detects at least one position on the one reference surface, data corresponding to the detected position of the reference surface (43) from the detection device (44) are transmitted to an evaluating means and from the data from the detection device (44) about the position of the reference surface, the evaluating means determines the position of the tool and the at least one handling device handles the work piece based on the determination of the position of the tool by the evaluating means [See paragraphs 0084-0087] wherein the detection device (44) approaches the predetermined reference surface on the shaping tool from one predetermined starting point [See paragraph 0052 & 0053].

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Denkmeier (US 2006/0042339 A1) in view of Fisher et al (US Patent 6,812,593). Denkmeier discloses a method for shaping a work piece using a shaping machine having at least one shaping tool comprising handling a work piece during a machining process with a handling device [human operator, See FIG 2], prior to machining the work piece on a shaping machine, determining a position of the shaping tool of the shaping machine by approaching one or more predetermined reference surfaces on the at least one shaping tool with a detection device (44), thereby detecting at least one position of the one or more predetermined reference surfaces, transmitting to an evaluating means information from the detection device (44) corresponding to the detected at least one position of the one or more of the one or more predetermined reference surfaces, and the evaluating means determining the position of the at least one shaping tool from the transmitted information regarding the detected at least one position of the one or more of the one or more predetermined reference surfaces, and using the position of the at least one shaping tool as a basis for handling the one or more work pieces by the at least one handling device [See paragraph 0084-0087]. Denkmeier discloses the invention substantially as claimed except for wherein the handling device includes at least one sensor, position measurement system and a gripper. However, Fisher et al teaches that it is well known to use robotics (handling device) to handle a work piece. Fisher et al further discloses that the robotic device (handling device) often includes an arm that can swing, grippers for gripping the work piece and position sensors that



determined the position of the grippers relative to the work piece [See col. 1 lines 13-40]. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the manual handling device [human operator, See FIG 2] of Denkmeier with an automatic handling device (robotic device) as taught by Fisher et al in order to provide a more efficient and precise handling of the work piece relative the to shaping machine. Furthermore, it has been held that broadly providing a mechanical or automatic means to replace manual activity which has accomplished the same result involves only routine skill in the art [*In re Venner*, 120 USPQ 192].

#### ***Allowable Subject Matter***

Claims 28-31, 33, 35, 39, 40 and 42-45 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 47, 48 and 50 are allowable over the prior art of record since the prior art of record fails to teach or disclose calculating a position of a coordinate system or reference system of each at least one handling device from the detected at least on position.

#### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 27-29, 32, 33, 38, 41 and 45 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Debra Wolfe whose telephone number is (571) 272-1904. The





examiner can normally be reached Monday - Thursday 7am - 4:30pm with alternating Friday 7am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached at (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Derris H Banks/  
Supervisory Patent Examiner, Art Unit 3725

Debra M Wolfe  
Examiner  
Art Unit 3725